(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 8 July 2004 (08.07.2004)

PCT

(10) International Publication Number WO 2004/056879 A2

(51) International Patent Classification⁷:

C08F

(21) International Application Number:

PCT/EP2003/015046

(22) International Filing Date:

19 December 2003 (19.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/435,949

20 December 2002 (20.12.2002) US

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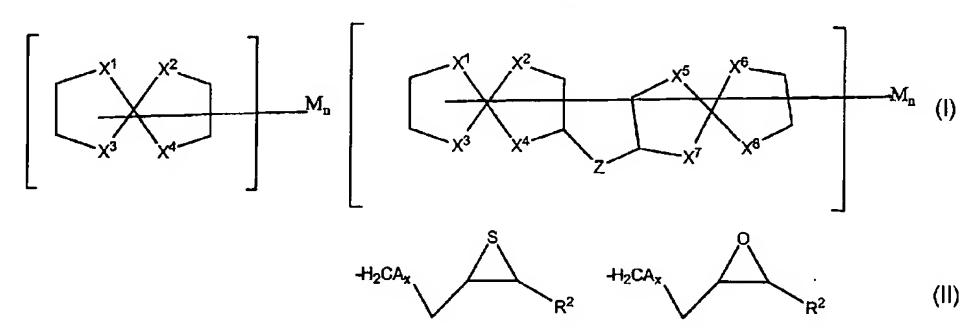
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- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GII, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PI, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

 without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SPIROTETRATHIOCARBAMATES AND SPIROOXOTHIOCARBAMATES



(57) Abstract: Spirotetrathiocarbamates (STOCs) or oxa substituted compounds (SOTOCs) of Formula I: Formula (I) or bisSTOC or bisSOTOC compounds of Formula II: Formula (II) wherein X^1 , X^2 , X^3 , X^4 , X^5 , X^6 , X^7 , and X^8 , are independently O or S; and preferably at least two and up to all four of X^1 , X^2 , X^3 and X^4 , and at least two and up to all four of X^5 , X^6 , X^7 , and X^8 are sulfur; Z is $-C_m R^2_{2m}$ wherein m=1 to 4; $-C(R^2)_2SC(R^2)_2$, $-C(R^2)_2SC(R^2)_2$, or $-C(R^2)_2OC(R^2)_2$; n is from 0 to 4; M is selected from CH_2C1 , $CH_2SC(O)R^1$, $CII_2SC(S)R^1$, $CII_2S(CII_2CII_2S)qII$ wherein q is 0, 1 or 2; $-CR^2=CII_2$. $-CII_2OC(O)CR^2=CII_2$. $-CII_2N=C=S$, $-CII_2N=C=S$,

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